

# AMERICAN ARTISAN and Hardware Record

Vol. 88. No. 19. 620 SOUTH MICHIGAN AVENUE, CHICAGO, NOVEMBER 8, 1924. \$2.00 Per Year



THE new dealer just getting started in the warm air heating game, and the contractor of long experience, both will find in the Wise Furnace the requirements they seek.

The Wise Furnace and its liberal agency plans make a successful start easier for the new dealer—Wise high quality and low fuel, labor and operating expense appeal to the dealer who has learned that he must satisfy his customers by giving the best value at a popular price.

Experience of twenty-one years of sound success, a dealer relationship you'll like, and a furnace you can rely upon—these are part of the Wise agency.

*Why not just ask us why the Wise agency  
will make better business for YOU?*

**The WISE FURNACE CO.**  
AKRON, OHIO

# WISE

# THE SUPER-SMOKELESS FURNACE

**SUPER-SMOKELESS DEALERS  
PROFIT BY  
INCREASED BUSINESS  
SATISFIED CUSTOMERS  
PROMPT COLLECTIONS**

**S**UPER-SMOKELESS Furnace dealers can build up a big business by furnishing their customers with furnaces that will burn soft coal smokelessly and with great efficiency, utilizing the smoke and soot as valuable fuel. It will be to YOUR interest to become a SUPER-SMOKELESS Dealer. Send for literature and Special Dealer Proposition.

**UTICA HEATER COMPANY**

UTICA, New York

218-220 West Kinzie Street, Chicago, Illinois



## ARMSTRONG Guaranteed Steel FURNACES

**L**OOK at this illustration carefully! You don't need more than a glance to see that here is a furnace that means business with a capital "B."

There are hundreds of other dealers scattered throughout the country who have reached this same conclusion, and the sales they have already made this season prove conclusively that the Armstrong Guaranteed Steel Furnace is the biggest money maker ever placed on their floors.

Armstrong Furnaces on your floor will prove the same thing to you; that they are priced right and sell readily—and that they will give you more profits and make more satisfied customers than any other furnace you ever handled. Steel-built, Armstrong Furnaces are made of the very finest copper-bearing fire-box plate, and are cold riveted and steel caulked throughout. They are virtually one-piece jobs, and require a minimum of time and labor for installation.

Write or wire your order for a sample furnace today

**The Thomas & Armstrong Co.**  
Dept. 502 LONDON, OHIO

Published to Serve  
the  
Warm Air Furnace  
Sheet Metal, Stove  
and  
Hardware Interests

Founded 1880 by Daniel Stern

# AMERICAN ARTISAN and Hardware Record

Address all communications  
and remittances to  
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AND  
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### SERVING OUR SUBSCRIBERS

Service speaks louder than words.

On another page of this issue of AMERICAN ARTISAN AND HARDWARE RECORD there appears an answer to an inquiry from J. P. Reinhardt, Bowling Green, Kentucky, on how to make a "Y" furnace connection.

In the issue of October 25th there appeared a reply to an inquiry of Howard J. Corbett, Pontiac, Michigan, for a making gable mould.

Here are only two of the many hundreds of inquiries which come to and are answered by AMERICAN ARTISAN AND HARDWARE RECORD for its subscribers.

Our aim is at all times to render that service which will be of the greatest benefit to our subscribers and consequently to the entire Sheet Metal and Warm Air Furnace industries.

Have you a vexing problem that is blocking your progress? Send it to us.

Have you some statement of general concern you wish to make in the interests of the trade you represent? Send it in. Publication of your name will be withheld if you so desire.

ALPHABETICAL INDEX AND CLASSIFIED LIST OF ADVERTISERS, Pages 44-46-48.



## Don't Wait Until You Must Have Them!

Check up on your stock now. Don't delay ordering until you are completely out of some important items—and must have them.

That you may avoid such a contingency, we are listing below a few reminders. Go over your stock now, mail us your order, and permit us to demonstrate Lamneck Service.

H. A. PIPE  
SMOKE PIPE  
ELBOWS  
ANGLES  
PULLEYS  
DAMPER QUADRANTS  
WALL STACK  
FITTINGS  
REGISTERS  
WOOD FACES  
CAST DAMPERS  
REGULATOR CHAIN  
ASBESTOS PAPER  
AIRCELL PAPER  
STOVE PIPE  
FURNACE CEMENT  
SHEET METAL SCREWS  
DAMPER CLIPS  
DRY PASTE  
ELBOWS

In case you do not have our catalog or desire samples, just drop us a line to that effect.



## "Just Look at That Stock ---Loafing?"

"I was just thinking, Fred. This morning you had a little argument with Smith about his slow work—loafing—or whatever it was—said he represented so much overhead and had to produce—"

"Well, I was right, wasn't I?" broke in the pardner.

"You most certainly were, BUT—just look at that stock—loafing just as surely as an idle hand in the shop. It isn't moving. Keeps too much money tied up; and yet I don't see how we can cut down on it. We've got to be able to care for our customers."

"Well, how about making a change. What do you know about this Lamneck Simplified line?"

"Plenty. I was just going to suggest that we change to Lamneck. I used it before I came with you and it can't be beat. Cuts the number of items way down and saves a lot of time on the job. Besides—they're honest-to-goodness stuff through and through."

*That's the beauty of the Lamneck Simplified Line—simplified in number, simplified to save valuable time, and made right—and back of it a policy that makes for dependable service and pleasant relations between manufacturer and distributor.*

**THE W. E. LAMNECK COMPANY**  
OFFICES, 416-432 DUBLIN AVENUE COLUMBUS, OHIO

# LAMNECK PIPE AND FITTINGS



# Let Us Not Exploit the Courage of the Men in the Research Laboratory.



**I**T ISN'T life that matters, it's the courage you bring into it that really counts.—Hugh Walepole, in "Fortitude."

Interpolated into commercial terms and applied to every-day business, there is a message of good cheer in this statement for the manufacturer, distributor and retailer.

In business as in war, courage is a primary requisite to constructive achievement and success.

Nowhere is the lack of it more flagrantly in evidence.

The man with the courage to back up his judgment with money and labor is deserving of a material reward in direct ratio to the risk he assumes in so doing, socialists or no socialists. This he receives in the form of monetary profit.

There is, however, a finer, although less spectacular, type of courage than either that displayed by the captain of industry when putting over a big deal, or that of the uniformed fighting man as he executes an offensive against the enemy.

We have in mind the tenacious courage of the research expert who toils patiently from day to day at his work of minutiae detail, uncovering and establishing the numberless facts without which the progress of the business man and soldier would still be in the primitive stage.

Unfortunately the ratio of reward tendered these silent but persistent seekers of truth is not in direct ratio to the value of their work.

Their remuneration must be secured, for the most part, from the satisfaction they derive from knowing that they have been of service to humanity; in the knowledge that their patience and labor has been to some degree the means of lightening the world's work.

A group of these men, well equipped for

their work after years of arduous study and training, rich in experience and possessed of an abundance of stick-to-it-iveness, are not lacking in Warm Air Heating and Sheet Metal Industries.

Their headquarters are at the University of Illinois and in the East and Northwest.

Accounts of the work they have already carried through to completion and that which they have planned for the coming winter in the interest and for the advancement of these two great divisions of activity have been given the reader through American Artisan.

It is these men who are placing knowledge, heretofore unavailable, at the command of the manufacturer, aiding him in his ambition to perfect his product and thus increasing its demand.

It is these men who are guiding the furnace installation to the end that will more nearly meet the heating requirements of the house.

The benefit these men render the industries which they are sponsoring and to society is not balanced by a dollar-and-cents recompense to them.

Therefore, in order to show our appreciation for the help they have given us, let us give them our hearty co-operation and support.

Let everyone appoint himself a committee of one to determine in what way he can be of the greatest service to these men and then do that thing, and do it well.

No better beginning can be made by you than by going to Urbana, December 2nd and 3rd to the dedication of the Research Residence. There you will see, hear and get first-hand information on what these men of the laboratory are doing for your business. You will see that they are human beings like yourself and their work makes them deserving of your support. Go and see them.

## Random Notes and Sketches.

By Sidney Arnold

"Newt" Pierson, Detroit Manager for the "Armco" folks, lives out in Birmingham, one of the Auto City's suburbs, and has a youngster who is just always looking for information. One evening "Newt" and his better half had been discussing politics and the word "proxy" was used.

"Pop," said the youngster, "what does that word mean?"

"Proxy means giving somebody the right to take your place or to do something in your place," explained "Newt," and for quite a while nothing was heard of the youngster.

When bed time came, Mrs. Pierson called the child and said, "Now you must go and have your bath, so you will be nice and clean for tomorrow."

"Oh, that isn't necessary, mamma; I gave my proxy to the dog and to make sure I dipped him in the tub three times."

\* \* \*

'Tis God's honest truth: Harry Barragar has been in jail.

Some weeks ago Sheboygan, Wisconsin, suffered a bad flood, and Harry, who sells Meyer furnaces and fittings, was among those present.

Harry's legs are not long enough to do much wading, so he started to look for a place to perch, only to find all hotels and private rooming houses filled up. Feeling as though advertising in some form might help, he began to tell the world that something had to be done when some one suggested that he tell his troubles to the police. Harry has always believed that no stone should remain unturned to accomplish an honorable end, so he approached the first cop he met and told him how it was, whereupon Mr. Policeman found him a room in the calaboose, where our friend spent the night. But he came out next morning smiling as usual.

To have attained the right to be named an octogenarian is an achievement. To have lived fourteen years beyond man's allotted three score and ten here below is an accomplishment worthy of more than mere passing note. But to have attained the age of 84 years in full possession of mental and physical vigor after an unbroken career of achievement which began under that famous old confederate general,



Henry H. Beers.

"Stonewall" Jackson, away back in the Civil War days, is deserving of a commendation of no ordinary import.

Such is the record of Henry H. Beers, president of the "Old Guard" during 1908-09. "Harry," as he is affectionately called, was born at Richmond, Virginia, his present home, November 16, 1840. Immediately following the close of the Civil War he went to New York city, where he entered the hardware importing business. His record of service to humanity since then and the place he has made for himself in the hearts of all who have been associated with him are bywords in every hardware establishment and countless others outside of the industry.

Mr. Henry H. Beers, AMERICAN

ARTISAN AND HARDWARE RECORD extends to you its most hearty congratulations upon your 84th birthday, November 16, with every wish for your continued good health and prosperity

\* \* \*

Gentlemen, are any of you pessimists? Are you discouraged or down-hearted? Look ahead. Our lands, our climate, our wealth, our productive and transportation facilities, our increasing consuming desire and capacity, our educational advantages, our churches, our protective national constitution, our floating flag, our spirit of loyalty, all remain. Demagogues or anarchists or fakers cannot deprive us of these blessings. Where else on earth can be found another such a nation? Let us be thankful, hopeful, confident and determined. Let us be loyal to our country, to all others who are interested in what we do or say, and to each other.

—JUDGE GARY.

\* \* \*

Howard J. Corbett, Pontiac, Michigan, for whom AMERICAN ARTISAN solved a problem on raking gable moulds in the October 25th issue, gratefully acknowledges the services rendered him, and also, in order to show his attitude to advertising, sends the following little poem, the spirit of which will be readily grasped:

### The Puddle Duck.

Said the puddle duck to the little white hen,  
"I've not sold an egg since I don't know when;  
Yet I feel quite sure that the eggs I lay  
Are as good as a hen's egg any day."

Said the little white hen to the puddle duck,  
"You think perhaps you are out of luck.  
Your eggs are as good, I'll freely admit,  
And larger, too, by quite a bit."

"But, my dear Mrs. Duck, I'll give you a tip;  
The whole fault lies with your salesmanship.  
You produce your eggs and without a quack  
To your swimming pool you waddle back."

"I tell the world to let it know,  
So I cackle around for an hour or so.  
There's a good demand for the eggs I lay,  
For I make my advertising pay."

—Manchester Journal.



## Is the Warm Air Furnace Business Being Sent on Rocks by Inefficiency?

*Minnesota Subscriber Paints Gloomy Picture, But We Look for Real Progress Because Better Work Is Gaining.*

**R**IGHT in line with the letter which we published on pages 21 and 22 of our October 25th issue is the following letter received from another of our subscribers, located in a large Minnesota city:

TO AMERICAN ARTISAN:

I enclose two clippings from our local newspapers to show you the true conditions an ordinary furnace installer has to contend with, and this is only a small percentage.

Every large furniture store sells and installs warm air furnaces and is hurting the legitimate installers. I have worked at this business 54 years and have a right to protest.

How many of the men putting up furnaces now can make an elbow? The majority are woodpeckers who come from a foreign country where warm air systems are not used and they have no knowledge of the work required until they learn it over here. There are carpenters, woodpeckers, painters and others who have no knowledge of this work, but who are putting in furnaces.

It will all come out badly for this business later on, and they have started hot water now; the manufacturers of hot water systems are pushing them and they are gaining right along.

This is my busy season, but I can give further details if necessary, as I am willing to do all I can any time to better and protect the business. I don't buy any furniture from the stores here; if other sheet metal men would do the same we would all be better off.

SUBSCRIBER.

—, Minnesota.

\* \* \*

**Editor's Note:** Much as we can sympathize with our subscriber who has been in the furnace business 54 years, which is almost as long as furnaces have been made, we are inclined to look at the situation in a little different light.

It is true, of course, that much harm has been done to the warm air heating industry by the recklessly exaggerated claims made by some manufacturers of so-called pipeless furnaces, and also by the fact that many furnaces—pipeless and pipe—have been installed by incompetent

### Perfect Heating Control

Assured with the installation of a

**Single Register  
HOT BLAST  
Fuel Saving System**

What a comforting satisfaction to the knowledge of an even, steady heat throughout the house—upstairs and down. No need of an intense fire.

**Burn 1/2 to 3/4 Less Fuel**

principle of Hot Blast Combustion burns all the fuel gas—rich in heat releasing properties. They are the same as money—don't waste them.

The furnace room a warm house and a cool basement. The best method for all kinds of gas, fuel and register.

**"Keep in a Cool Dry Place"**

There are but a few of the things that Single Register Systems will save to you.

Stop in and give us an opportunity to explain fully the superior quality of this remarkable furnace.



**BAYHA & CO.**  
 Superior St. at Third Ave. West

One of the Advertisements Sent in by Our Subscriber,

men. But at the same time, it must be remembered that reliable and efficient installers have been at work and thousands of warm air heating plants stand today as eloquent witnesses for the healthfulness, the comfort, the economy that a well installed furnace gives to the occu-

pants of a home fortunate enough to be equipped with one.

The warm air furnace industry has itself to blame for much of the difficulty under which it has been laboring. Poorly made furnaces, sold in big quantities at quantity prices to concerns that cared little or nothing about preserving the good-will of the momentary customer, unscrupulous installers, catering to speculative builders, rule-of-thumb installers who knew next to nothing about the fundamentals of air movement and cared less.

All of these helped to make it easy for the hot water and steam people, and naturally they took advantage of the situation.

But the fact remains that during the past few years there has been a very marked change for the better. Manufacturers who formerly specialized on quantity production of cheap furnaces are now featuring better grades; those who went wild on the pipeless game have in most cases admitted the error of their ways and are making and selling both pipe and pipeless on a basis of real efficiency; installers are taking advantage in increasing number of the services of the engineering and planning departments maintained by many of the manufacturers; and last, but not least—the great research work which has been conducted for several years at the University of Illinois, under the auspices of the National Warm Air Heating and Ventilating Association is bearing fruit in the dissemination of reliable information on heat losses, methods of installation, type of equipment, etc., which is based on thousands of tests and experiments that have been carried out there by men who are trained for such work.

We do not agree with our Subscriber. On the contrary, we are convinced that the warm air heating industry is entering upon an era of unprecedented progress and prosperity, because from now on furnace making and selling can be done on a basis of real efficiency.

We may help you—ask us.



## Research Residence Dedication, December 2 and 3, to Draw Large Warm Air Heating Delegation to Urbana.

*Event Constitutes First Step of United Effort to Put Warm Air Heating on Firm Foundation.*

THE automobile industry and countless others have long since learned the value of creating wider interest in their products by giving them news publicity. This they could not do directly. They can however, put it over indirectly—which they did and still do by widely advertising their annual races and shows.

Doubtless warm air furnace installers who believe in letting well enough alone will reply that the automobile industry has a product which appeals to the love of pleasure—and speed—in every individual. They also will say that the automobile show and race has greater news value than the warm air furnace and consequently the newspapers are more willing to print automobile news in preference to warm air furnace news.

Prima facie evidence does tend to leave that impression, but if we go down below the surface we will find that individuals are about as anxious to keep in good health as they are to see the latest model Ford. If further proof of this fact is desired we suggest that the doubting Thomases review the statute books of almost every state in the Union and see for themselves the amount of legislation that has been enacted to curb quack doctors. Their victims were made gullible by their ailments—supposed or real.

The indirect method of publicity must be used, but what matters it so long as we accomplish our object? In order to get newspapers to publish items about the warm air industry, we've got to make that news interesting; we've got to appeal to the individual's desire for good health.

As a starter in this direction Allen W. Williams, secretary of the National Warm Air Heating and Ventilating Association, takes the dedi-

cation of the Research Residence at Urbana, Illinois, December 2nd and 3rd, as a subject worthy of a place in the news sections of local newspapers.

Mr. Allen's suggested news item is as follows and portions of it have already appeared in those columns:

"December 2nd and 3rd will be red letter days in the history of the National Warm Air Heating and Ventilating Association and the warm air heating industry generally. At that time at Urbana, Illinois, the Warm Air Heating Research Residence will be formally dedicated and opened to the public and the mid-year meeting of the association held.

"For several years, scientific inquiry has been made at the Univer-

sity of Illinois, under the direction of the national association looking to improvements in warm air heating and ventilating, especially of the home. In order to concentrate the results of these inquiries and to conduct still further experiments along that line, the Research Residence was erected and equipped with funds provided by members of the National Warm Air Heating and Ventilating Association.

"The building will house one of the most elaborate arrangements of thermal testing equipment ever assembled in a residence laboratory. The university has been carrying on a series of tests of this nature since 1918, the results obtained being of such importance that the national association has backed it stronger and stronger each year.

"In addition to the dedication, there will be a review of the results from the research work since last spring and all interested are invited to attend. A very large attendance is promised."

## T. W. Torr Says Installer Must Use Good Judgment When Applying Installation Rules.

*Rudy Furnace Heating Engineer Says Installer Should Make Constant Study of Air Circulation*

IN THIS article—the fifth of a series, entitled, "Rudyizing the Home"—T. W. Torr, heating engineer of the Rudy Furnace Company, Dowagiac, Michigan, has emphasized the necessity of using good judgment and common sense when applying the rules laid down for determining the sizes of warm air ducts required.

The article follows:

### Rudyizing the Home.

"The circulation of air under different conditions should be the constant study of the furnace man, for only by a familiarity with this subject is he assured of finding a satisfactory solution to the difficulties often encountered in installations.

"It is possible to lay down certain rules governing the size of pipes and registers; but, we believe, there

never was and never will be a rule to fit all cases; therefore, to make its use valuable the rule must be applied with good judgment. This good judgment cannot well be exercised unless the installer is familiar with and can adapt it to the conditions surrounding the work.

"Most installers have some rule for figuring the size of leader pipes for residence work. Occasionally the rule will be used, more often past experience and good judgment are the guides in selecting the right size.

"Rudyizing the home deals with installations from a practical standpoint. For those who desire rules we will furnish them or refer them to any furnace text book.

"Rarely is the installer in trouble through using the wrong size of

warm air pipes because the sizes which are used in practical work are few. Most residence work can be covered by the use of 9, 10 and 12-inch pipes.

"We feel safe in saying that 90 per cent of the warm air furnaces installed go into eight-room houses, in which there is little variation in the size of the rooms. Almost without exception, to heat these houses requires the use of 9, 10 and 12-inch pipes. In the vast majority of cases, therefore, the selection lies in these three sizes.

"Bedrooms or bathrooms on the first floor will usually take the capacity of a 9-inch pipe, and it is used to supply the wall stack. The best we can get in the walls in the way of a riser is a No. 8 double stack or a  $3\frac{1}{2} \times 12$  single. The single stack, owing to its lack of rigidity, does not have a greater carrying capacity than the double stack. A capacity of 36 square inches unless special provision be made is all we can figure for our wall stacks, which is little enough. The use of smaller stacks should not be considered unless there is positively a lack of room for the larger size.

"The 63-square inch capacity of the 9-inch pipe is needed for the stack on account of the increased velocity in the stack. This quite clearly defines the use of the 9-inch pipe.

"A 10-inch capacity will generally heat the kitchen, sometimes the dining room and is useful in helping out the large living room in conjunction with another pipe. We do not like to use a 10-inch pipe on a combination. That is, a double head base board for two first floor rooms or a base board with a stack up. Better use the 12-inch for this condition which rather well defines the use of these two sizes.

"Length of runs, elbows, angles, etc., have a bearing on the size of pipe. Perhaps the best rule we can give is this: When in doubt about a 9, use a 10, and when in doubt about a 10, use a 12.

"When planning jobs for large residences; that is, those of nine rooms or more, we find the 14-inch

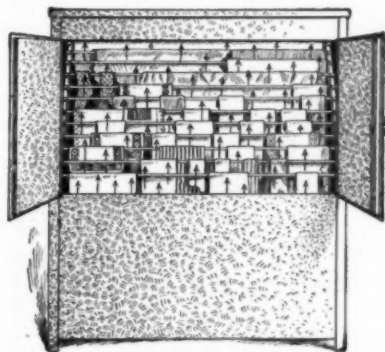
pipe useful. In these large houses with a big living room or sun parlor the 14-inch pipe can be used to advantage. It also is quite useful for combinations. There should, however, never be any doubt in the mind of the experienced installer regarding when it should be used.

"The 16-inch pipe is difficult to install owing to the construction of houses and the usual basement conditions. It is also likely to destroy the balance of the other pipes, so we prefer and recommend that where the capacity of a 16-inch pipe is needed that it be gained by the use of two 12-inch pipes. The few extra inches in the capacity of the two 12-inch pipes will compensate for the slight increase in friction.

"When we do encounter difficulties in the warm air it is in the distribution, balancing, and location of the furnace. These subjects will be the text of article No. 6."

### ***Lamneck's Make Clothes Dryer for Houses and Apartments.***

Rainy wash days will hold no terrors for housewives who have their laundry equipped with a laundry dryer such as has recently been placed on the market by the W. E. Lamneck Company, Columbus, Ohio.



**Lamneck Laundry Dryer.**

Arthur Lamneck, who showed the dryer to the writer, explained that 60 feet of drying space is provided in this useful appliance which is enough for a tubful of clothes. They will dry in time to allow the second tubful to take their place as soon as that has been washed, rinsed and blued.

The dryer is equipped with a completely enclosed gas burner at

its base. Very little gas is consumed, yet a large volume of fresh air is heated by radiation. All gas fumes and odors are drawn into a flue with no possible chance of contact with the clothes. An electric light inside of the dryer and a small glass window at the top of the side panel makes it possible to inspect the clothes without opening the doors and thus waste heat. A thermostatic control eliminates any possible fire hazard.

The dryer itself is made of heavy galvanized iron and is put together without bolts, nuts or screws. Each part fitting into the other and making it as rigid as if built like a refrigerator. It is shipped "knock-down," thus saving materially on freight.

A well planned series of selling helps has been prepared and it is stated that wherever the dryer has been installed it is giving high satisfaction.

Furnace installers can add materially to their profits by selling these dryers.

### ***E. L. Schneider Joins Waterman-Waterbury Production Force at Minneapolis.***

The Waterman-Waterbury Company announces that, effective November 1st, E. L. Schneider, formerly of Marshalltown, Iowa, will be in charge of their production department in the capacity of factory superintendent.

Mr. Schneider is well known to many in the furnace trade, having been actively engaged in the furnace business for the past fifteen years.

Mr. Schneider's practical experience fits him ideally for his new position.

Prior to 1909 Mr. Schneider was engaged in practical foundry work. In the year 1909 he undertook the position of foundry foreman for the Lennox Machine Company, Marshalltown, Iowa. From 1910 to 1920 Mr. Schneider served as foundry foreman and factory superintendent for the Lennox Furnace Company, Marshalltown, Iowa, giving up this position in 1920 to become factory



superintendent for the Marshalltown Heater Company, Marshalltown, Iowa.

In 1923 Mr. Schneider served as salesman for the Lennox Furnace Company in their North Platte territory in Nebraska.

Mr. and Mrs. Schneider have taken up their residence in Minne-

apolis, having moved into their new home late in October.

The employment of Mr. Schneider by the Waterman-Waterbury Company is in line with their policy of employing the best talent available to make the Waterbury Seamless furnace a leader in the furnace field.

## Warm Air Furnace Advertisements Must Hew to the Line With Regard to Where Chips Fall.

*Groves-Thornton Hardware Company  
Good Copy for Pipeless Furnaces.*

FROM the frigid to the temperate zones in warm air heating is considerable of a jump. To get people to make it, which is your object in advertising a warm air furnace, it is only necessary to state the facts as they are.

Before you can state the facts,

however, you've got to get an audience. You are in somewhat the same situation as the street vendor finds himself when he puts down his box of treasures. He draws a crowd by performing some clever little trick which draws people's attention, then, when a large audience

has assembled, he opens his box and reveals the real purpose of his visit—to sell them something.

In other words, an appeal to the innate curiosity of the newspaper reader will serve the same purpose as the trick of the street vendor.

This appeal is usually found in the headline of an advertisement or a combination of headline and illustration. From here the reader is carried on in suspense until he has got the drift of the advertisement. If he is interested, he reads on to the end; if not, he passes on.

All readers whose eyes are attracted to the advertisement are not immediate-possible customers. Some of them may be at a future date, because every day the king dies and a new king takes his place. But what the ad is after primarily is to sift the meat—immediate buyer—from the chaff and thus create sales.

A partial attempt in this direction has been made in the accompanying advertisement of the Groves-Thornton Hardware Company, taken from the *Huntington, West Virginia, Advertiser*. There is room for improvement in the headline, however, as it should hew a little closer to line and with due regard to where the chips fall.

### *Tee Bee Tells the Whole of the Hole Story in a Clever Vein.*

Tuttle & Bailey Manufacturing Company, 2 West 45th Street, New York, makers of TeeBee registers, have issued a new TeeBee catalog entitled, "The Whole of the Hole Story." It's a "beaner," as Harold Teen says, and, indeed, it has a hole—two holes—in it, but don't get nervous because those holes are wholly protected by a lattice work representing the TeeBee register.

As usual with the advertising matter of this progressive firm, the appeal is made through humorously philosophic veins that speak whole books full without the reader knowing he has read anything at all.

For instance, down in the lower left-hand corner the well known TeeBee man stands pulling the while



## STORE NEWS

"THE WINCHESTER STORE"

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HUNTINGTON, W. VA. THURSDAY, NOVEMBER 1, 1923



## The Caloric Heats Them All

Homes, Churches, Schools, Factories all over the country are being heated more comfortably and at less cost with the CALORIC PIPELESS FURNACE.

CALORIC success has been so revolutionary that it has aroused opposition from those who profit from making and selling out-of-date systems.

The CALORIC is 100 per cent success, proven so by its record through years of making good—and by the guarantee of "satisfaction or money back" under which we sell it.

**"WE DELIVER THE GOODS"**

820-22 24 Fourth Avenue

Phone 770

Warm Air Furnace Advertisement Appearing in Huntington, West Virginia. Advertiser.



upon a cork screw—no, not out of a bottle. But tells you to take the cotton out of your ears so that you can get the whole of the hole story. Then the story begins. No, I'm not going to tell you the story; if you don't know it already, drop a card to TeeBee and he'll send it along.

### **Making Jack Frost Produce Business for Ralph Poe.**

It is a well known axiom that he who has foresight enough to advertise his service in the right way will reap the reward of ever-increasing volume of business.

Now don't break your neck rushing in to place your space requirements. The first thing to do is to

his advertising space that makes folks sit up and take notice that the summer "has went." He strikes not while the iron is hot, but while the days are cooling in order that his friends won't freeze when the days are entirely cold.

In return for his thoughtfulness he is given the order for business.

The accompanying reprinted advertisement is one used by Mr. Poe recently to drum up business.

### **St. Clair Foundry, Belleville, Describes Self-Cleaning Radiator in New Leaflet.**

The St. Clair Foundry Corporation, Belleville, Illinois, makers of Wiechert warm air furnaces, have

## **JACK FROST Will Soon Be Here**

**Better let me look over that  
Furnace of yours and fix it  
up for the winter. We  
repair all kinds and  
makes of furnaces**

We Are Agents For

**Colburn**

and

**Marshalltown**

**Furnaces**

# **Ralph Poe**

EXPERT

FURNACE AND SHEET METAL WORK  
150 N. MAIN ST. PHONE 410

Showing How Ralph Poe Capitalizes on Advent of Jack Frost.

determine what is the right way to advertise. Just stop and think! You are selling and installing warm air furnaces. You also render a service by cleaning and examining these furnaces before they are fired up for the winter. Perhaps there will be repairs to be made and these you also place with a profit. All right, the fall season is approaching which will compel action on the part of those who wish to have their furnace in ship-shape to repel the icy blasts. The fellow who calls attention to these facts gets the business.

Ralph Poe, of Canton, Illinois, has mastered the fundamentals of advertising. He puts sentences into

issued descriptive material covering their No. 1000 Series Pipe Furnace, including therein the self-cleaning radiator feature.

The leaflet is 8½x11 inches, well edited and illustrated in such a way as to give the reader a comprehensive knowledge of the appearance of the furnace as a whole, as well as to show the ease with which it can be assembled or demounted.

This material is readily accessible to the reader in the shortest possible time. Your name and address on a 1-cent postal card will bring the leaflet to your desk.

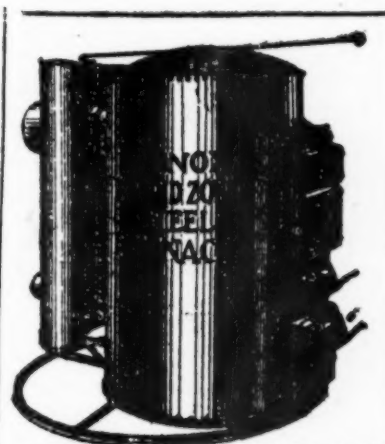
We may help you—ask us.

### **J. I. Thomas, Lewiston, Pennsylvania, Goes Out for Business.**

It is a psychological fact that things pleasing to the eye attract, while displeasing objects repel the eye. This is true in advertising as much as in other ordinary every day experiences.

The obvious purpose then is to make the ad as symmetrical and attractive as possible before other factors are taken into consideration. This involves the institution of proper balance in the ad. The illustration should be proportional in size to the entire size of the ad.

The next consideration is the type size. A closely compact area of small type presents a seemingly insurmountable obstacle to the reader which he quickly passes over. Every advertisement should have a head-



Its here, been tried and found not wanting, a furnace that is absolutely safe, smoke and dust proof.

If considering a furnace it will pay to look this one over, our method of installing follows the code approved and adopted after years of tests and study by the largest Heating & Ventilating Engineers & Associations of the United States which assures you a firstclass heating plant.

Tell us your troubles if its a warm air plant, we have remedies for all cases, we have done it, we are doing it and can do it again.

J. I. THOMAS

Office and Shop, Near 25, 30, 32, 34  
Valley Street, Bell Phone, 297-W.

Pushing the Lennox Furnace in the East.

line which coöperates with the illustration in introducing the subject as quickly and as effectively as is possible.

The accompanying advertisement was taken from the *Lewiston, Pennsylvania, Sentinel*, and was of the size shown.

# Kothe Shows Reinhardt How to Construct "Y" Furnace Connection.

*Says Layout Should Be Drawn to One-Half Size and Then Doubled When the Actual Layout Is Made.*

Written Especially for AMERICAN ARTISAN by O. W. Kothe, Principal, St. Louis Technical Institute, St. Louis, Missouri.

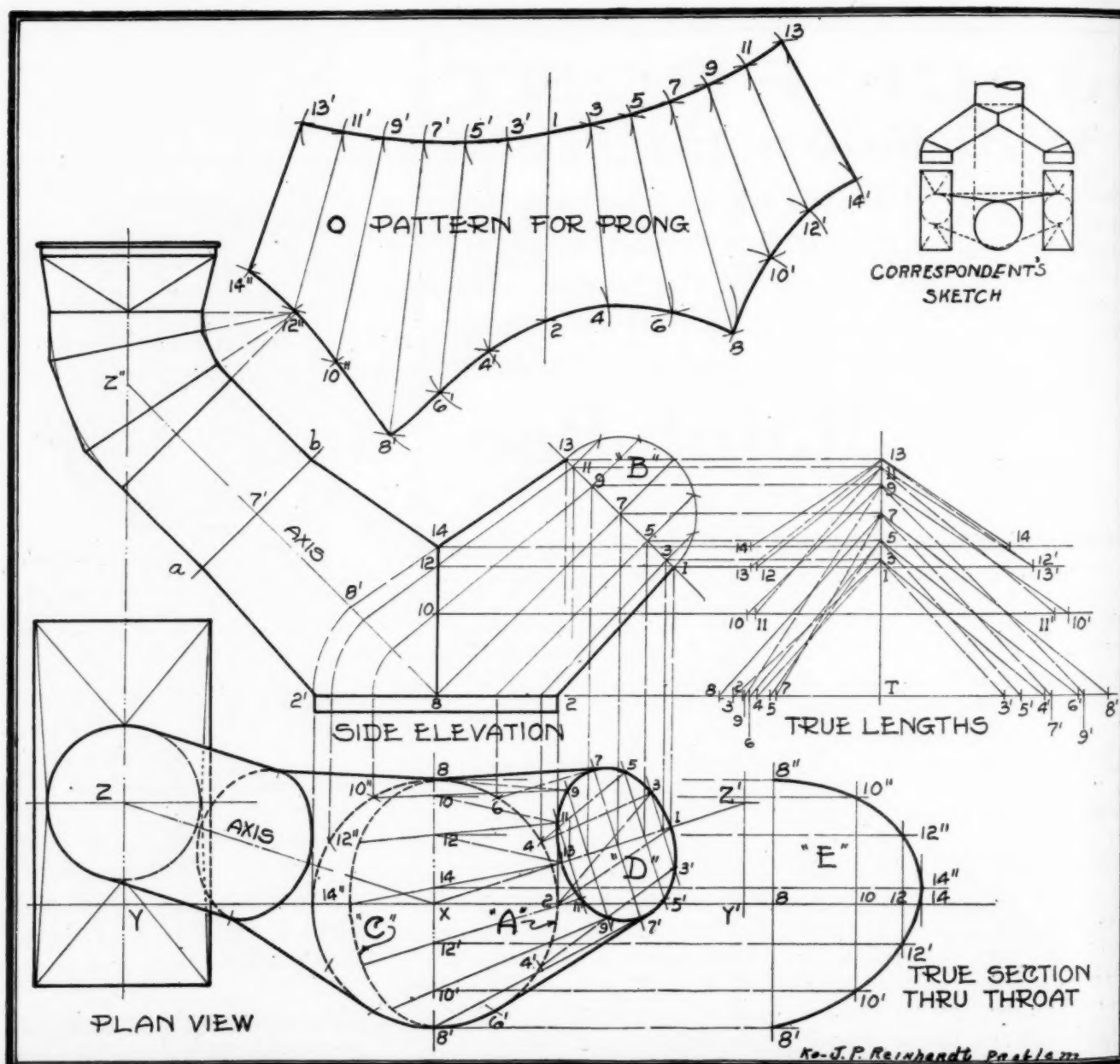
**R**ESPONDING to the recent inquiry of J. P. Reinhardt, Bowling Green, Kentucky, I shall say that the accompanying drawing will give the solution to his problem. Another thing, I suppose the correspondent will have to have a good knowledge of triangulation, otherwise some snags may present themselves in not interpreting the draw-

ing correctly. But the process of development is here.

Being that this is a rather large pipe fitting, and requires the projection of lines to some lengths, it will no doubt be best to draw the entire layout to one-half size, and then simply enlarge the pattern twice; that is, space for space and line for line. That will give you the full-

sized pattern. You can use a quarter-full size; but you must be more accurate and careful.

I suppose the elevation will be one of the easiest views to draw first—so after locating your measurements for the vertical depth and offset of hopper or hood from a vertical center line and base line—you can draw the axis line 8-Z'. This



Pattern for Eccentric Y Branch.

gives you elevation angle. Next measure off your plan angle as X-Y-Z, and then draw the plan axis line Z-X. This is really all we require to start our development, although we should decide on a suitable length on the elevation prong, as 8-7'. This can be made any suitable length; not too long or too short, but so a uniform taper will result, and then draw the base line a-b square to the axis.

In the shop the development could be carried right out from this left-hand part of the drawing; but we shall switch these angles over to the right-hand side, as angle 8-7 with base line 1-13. Next describe the sections "A" to suit the size of the main pipe and divide in say, twelve equal parts from the vertical or horizontal axis line. Then describe section "B" of elevation prong and divide in half as many spaces as are in section "A." From these points in "B" square lines to the base line 1-13 as in points 3-5-7-9-11. From points 2-4-6-8, etc., erect lines to base of elevation 2-2', and then make 8-8' at right angles to 8-7, and describe the points from 8-2' to this line 8-8' and then draw to points in base 1-13 as shown. Observe this gives you the throat line of elevation, and also those intersections as 10-12-14.

Now, from each point in base 1-13 drop lines to cross the plan axis X-Z' as between points 1-7"-13. Next adjust your triangle on your T-square in such a way that the line 7-7' can be drawn through point 7" at 90 degrees. With the aid of the triangle draw all these lines at right angles to X-Z'. Next develop the oval "D" by picking the sectional lines from "B" and setting them on each side of center axis of plan. This gives points 1-3-5-7-9, etc., through which the oval is traced. After this develop a half oval for the pipe end 8-8' of elevation as shown by the dotted semi-oval "C" in plan. This gives you points 10"-12"-14", etc., to correspond with elevation.

After this you can draw the plan lines, as 1-2; 3-4; 5-6; 7-8; 9-10"; 11-12"; 13-14", etc. Observe this

establishes out points on the center vertical line of plan as 8-10-12-14-12'-10'-8', and these points will correspond with those of elevation. This shows how the plan lines pull the prong over and so establish these points in plan.

The next step is to develop the true section "E" which will be a view through the throat of elevation or plan. Here the elevation points as 8-10-12-14, give us altitude, and these are set on a horizontal line as 8-10-12-14 in "E." Draw vertical lines through these points, and then from each point in miter line of plan project points to cross similar line in "E." This gives us points 8'-10'-12'-14"-12"-10"-8", and this is the girth we use in developing the pattern for the throat cut.

The next step is to develop the true lengths, there the elevation points give us altitude, while the

plan points or lines gives us flare. So draw a line as T-13, and from each point in elevation bring over horizontal lines as shown. Then pick the plan lines as 1-2; 2-3; 3-4; 4-5; etc., and set them in diagram over to the left from T-13. From these points draw lines to the corresponding altitude, and you have the true lengths. Those on the left side of line T-13 are for the far side of plan, and those on the right hand side are for the near side of plan. This way we keep them separated and it avoids confusion setting out the pattern. The pattern is set out the same as all tapering fittings developed by triangulation and would add, that the girth for the top is taken from section "B"; while the girth for the bottom base is taken from "A," and the girth for the throat is taken from true section "E."

## *"Experienced Solderer" Gets Down to Brass Tacks on the W. & T. Greenhouse Eave Trough Problem.*

*Advices Job to Be Taken Out And Completely Re-Soldered In Longer Lengths.*

THE answer given by G. A. Byor to the inquiry of W. & T. in our October 25th issue has inspired "Experienced Solderer" to make further comment upon this type of work. He has gone into the subject from the standpoint of experience and has got down to the "brass tacks" of the reasons why the difficulty was experienced in the case of the greenhouse eave trough.

"Experienced Solderer" letter follows:

TO AMERICAN ARTISAN:

The recent request of W. & T. for a method of making a strong solder joint and G. A. Byor's method submitted, really opens the way for a general discussion of soldering.

Although W. & T. say the gutter was well soldered originally by greenhouse builders, I fear the men who did the gutter work, especially, were of the same type mechanics as

those who install mail order furnaces, such as were troubling John Smith in his recent letter to you. Possibly they were put up in 10-foot sections, one at a time, and skim soldered each joint as they hung.

**Gutter Should Be Sectioned on the Floor.**

A real sheet metal man would have sectioned out that gutter on a floor or other straight surface, where he could roll it around and sweat each joint, and if he could not put up a whole run of gutter in one section, he would put it up in as few runs as possible to avoid pointed joints. Pointed joints—so called because they usually run up and down, and the solder has to be applied with the point of the soldering copper—are never expected by experienced men to hold under much strain. They cannot be sweated for the solder cannot be made to flow in where wanted. However, com-



mon eaves troughs will hold together better at solder joints, even pointed joints, than any other form of gutter. This is due to its hanging free on hangers.

I have installed ordinary outside work in both galvanized iron and tin, where no special allowances were made for expansion and contraction other than very careful and thorough soldering, and the sweated joints (and even the pointed joints in common eaves trough) all withstand the extremes of summer heat and winter cold without breaking. I cannot conceive of such extremes of expansion and contraction in a greenhouse that is in operation.

#### Avoid Pointed Joints.

Pointed joints in all kinds of work are to be avoided as much as possible. In designing, cutting and fitting, plan to substitute flat or level joints for pointed joints. A little thought and practice in work will reveal numerous opportunities for this. As to putting up straight runs of gutter, the lengths of the sections are limited only by the facilities you have in hanging them. Of course, there are difficulties that sometimes arise, that should not be there. You may be careless yourself in sectioning out the gutter and not get it straight, or the carpenter may leave you a crooked shingle line at the eaves, or fascia board line, and then you may have a merry time with your long sections. It takes careful watching and considerable skill in making proper allowances for these difficulties to insure snugly fitting and nicely finished work that is at the same time most serviceable. It takes time and it takes two or more sheet metal men working together on the same small job, and that is contrary to the economics of a keen, modern competition. That is why there is always lots of repair work that consists of soldering broken seams and joints or various kinds.

#### Sweated Joints the Secret of Good Work.

In a general way, sweated joints are the secret of good original soldering. Rivets help, but are less important than the soldering itself. Joints originally skim soldered are

almost impossible of repair, because it is impossible to clean back into the joints sufficiently so that the joining surfaces can be sweated together. The natural corrosions, or corrosions resulting from the fluxes used in the original soldering will not, weeks afterwards, yield to new attacks of fluxes, and the solder will not flow into the joint and take hold of the adjoining surfaces otherwise.

In necessary cases of such repairing, opening up to such surfaces as much as possible to clean them with a scraper, and then riveting the joints closely, or using small stove bolts, 5/32x1/2-inch, or using repair screws or cleated nails if the gutter is laid in a wooden form, carefully soldering over these fasteners and sweating the joint as much as possible will hold sometimes, but not always.

Another method is to clean back on each side of the opening of the joint, tin these cleaned surfaces with solder, and then put a strip of zinc or tin about 1 1/2 inch wide over the seam, just catching the strip along the edges, sweating about 1/4 inch to 1/2 inch in from the edges, but not clear across the strip. These little strips may be called expansion bands and will take care of some of it. But in time the zinc cracks between its two soldered edges and parallel with them, while the tin pulls loose one edge or the other.

No amount of piling up solder on the outside of a repair joint is effective. It may break open again over night.

#### Spend More Time on Original Work.

The only sensible solution of repair work is less of it and more time spent on original installations. Out on new jobs, solder joints are made in five or ten minutes that would require several times that length of time being spent on them if properly made and ever expected to hold. Tin roof is being superseded by galvanized iron and paper roofs, directly traceable to skim soldering. Galvanized iron may go for paper, too, and copper and zinc have a short reign, if workmanship is not improved. People will not pay for

expensive materials to make a seive of a roof when they can get paper seives cheaper. About the only thing that has saved the day as long for us as it has is that paper roofers have the speed mania also.

If Byor's method fails, W. & T., I would suggest a little salesmanship out of the dilemma, selling new gutters and some real sheet metal workmanship. Those gutters undoubtedly can be replaced with new ones that will hold, and it will cost less than any successful repairing of the old, unless the greenhouse is now so occupied that long runs of gutter cannot be handled in one piece inside the building.

Yours truly,

EXPERIENCED SOLDERER.

—, Illinois.

#### Handy Book on Reading Blueprints Issued for Machinists and Pattern-Makers

"Reading Blueprints" is the title of a 6x9-inch paper-covered hand book, written by James K. Shallenberger and recently published by the Manual Arts Press, Peoria, Illinois.

Students of mechanical drawing who have difficulty in reading blueprints will find this little book of service in teaching them how to construct mental pictures of the object as portrayed on the blueprint.

To machinists and pattern makers especially the contents of the book will be found useful, as it contains complete instructions on how not only to read blueprints, but how to test the result for relation of views. Each example is augmented by a drawing, showing three views of the object properly lettered so that the student may readily grasp each step in the explanation.

The book retails at 85 cents and can be had through AMERICAN ARTISAN book department.

The real salesman will never take an order unless he has reason to believe the customer has complete confidence in the merchandise. Such men reason that one sale does not make a season, so their firms are not interested in the one-time sale.

## New Theatre Building Equipped With Aeolus Dickinson Mushroom Floor Vents.

*Company Gets Order for 1700 from Prominent Chicago Architect to Put in Building of Sawyer Amusement Co.*

**T**HEATERS, churches and halls of large capacity containing tiers of seats, require positive and efficient heating and ventilating systems.

Among this group, in theaters especially, where large numbers of people are in constant motion, making entrance and exit at short intervals, and where an even heat must be maintained, the importance of the heating system becomes readily apparent to all heating and ventilating engineers.

One of the most recent theater floor vent installations to come to our notice is that of the new Dickinson cast iron mushroom floor vent, made by the Aeolus Dickinson Company, 3336 South Artesian Avenue, Chicago, makers of the Aeolus ventilator.

As an indication of the faith which heating and ventilating contractors have in this new vent, the Aeolus Dickinson Company has secured a contract for 1700 from Fridstein & Company, Chicago, to be used in the floor of a theater building now under cargo. W. L. Hand is the mechanical and electrical engineer of the Fridstein Company who had charge of the work.

This particular vent fills a need with which architects and builders of theater structures have had to contend for the reason that it puts the heated air on the floor, instead of shooting it onto the ankles of the audience.

"This new vent has also made an appeal to ventilating contractors because of the ease with which it can be installed," says the Dickinson Company. The floor section is made with any length of pipe to fit the thickness of the floor, and can be set by the contractor or carpenter before the floor is laid.

When the heating contractor finds it time to install the tops, he has only two short bolts to set, in order to fasten the middle section securely to the floor. The cap is then put on and fixed rigidly in place by three screw bolts, the nuts of which are held from turning by a slot in the casting.

Since the cap is made to be a snug



Showing the Three Sections of the Aeolus Dickinson Cast Iron Floor Vent.

fit to the lugs of the middle section, the three screw bolts can be drawn tight without danger of cracking the casting, and when tight will hold the cap at any desired position.

In line with the service and coöperation which the Aeolus Dickinson Company maintains for the contractors with which it deals, the floor section of the vents only are shipped early, while the tops are held at the factory subject to order when wanted. This relieves the contractor from having a number of barrels or crates

taking up his storage space on the job for three or four months before the tops are needed on the job.

Contractors and engineers who are interested in the use of this improved floor vent, which was designed especially to show high capacity and yet put the air on the floor instead of shooting it straight out onto the ankles of the audience, the company says, can get full information by dropping a 1-cent postal card addressed to 3336 Artesian Avenue, Chicago, in the mail box.

Making the materials conform to the needs and conveniences of the contractor while erecting the building is a commendable service from the manufacturer. How awkward and how impractical it would have been for the builders had they found it necessary to install the entire floor vent at once or to forego using it entirely.

How often do we see great piles of steam radiators thrown helter skelter on the ground near an apartment building under construction? Here they lie for two or three months exposed to the weather, taking up space and taking on a beautiful coat of rust. A little forethought, such as that used by the Aeolus Dickinson Company in only delivering half of the vent and holding shipment of the remaining portion is a service deserving of much credit.

Such service, when made known to architects, will be appreciated, and it will tend to bring these architects to look

more kindly upon the sheet metal industry as a whole. It will bring them to a realization of the fact that the men in the sheet metal industry are a dependable and progressive ally whose services and products they can well afford to enlist in their work.

From heating and ventilating work it is only a step to sheet metal cornices and roofing. Why not make it unanimous by getting these same architects interested in these other phases as well?



## Tarpenning-La Follette Company Believes in Generating Wholesome Publicity for Their Shop.

*Exhibit at Indianapolis Industrial Show Reveals Ingenuity and Resourcefulness of Men Back of Firm.*

**S**UCCESSFUL merchandisers know the gentle art of creating favorable publicity for the store—not only paid advertising, but news column publicity generated by participation in local affairs, which has even greater pulling power.

The Tarpenning-La Follette Company, 1030 Canal Street, Indianapolis, Indiana, engineers and sheet metal contractors, appreciate fully

common enough to the general populace to halt progress long enough to take in the warm air furnace and the skylight.

Reference to the ventilating systems and dust collectors installed by the company is also well taken. These and the sheet metal work are furnished by the company to other sheet metal contractors as well as to consumers.



Sheet Metal Work and Ventilating System Exhibit of the Tarpenning-LaFollette Company at Indianapolis Industrial Show.

what it means to get their products out where they can be seen by large assemblies of people. Charles T. Tarpenning and B. E. La Follette are the heads of the firm.

The illustration shown is that of an exhibit at the Indianapolis Industrial Show, held recently in that city.

Directly in the foreground is seen a traffic signal which, during the exhibition, was electrically connected just as it is when installed at street intersections. The lettering is significant and the whole scheme ingeniously put together. Few promenaders at the exhibit could pass it without getting the name of the store.

Passing from the traffic signal to the refuse box, we see an expression

Bringing the store or shop and its products to the attention of large groups of people in the manner shown has a two-fold effect. First, it introduces the store to many new people, and secondly, those people, having been introduced, recognize the newspaper advertising of the store more readily. Such advertising means something to them because the concern has made itself a part of their experience.

### H. L. Gary Takes a Shot at Frye's Problem.

Harry Frye has certainly learned one thing from all of this mathematical gyration and that one thing is that when he graduates from the sheet metal business and begins to

write books on mathematics for the younger generation, he won't lack persons to whom to dedicate said books and we fear his prefaces will be unduly long in giving credit where credit is due. Fortunately no one ever reads prefaces, so it won't make any difference.

H. L. Gary, distributor of the Noyes furnace at Ashtabula, Ohio, is the latest to be hauled into Frye's cobweb. Too bad we don't publish a daily, then Frye could start a "cross word" puzzle.

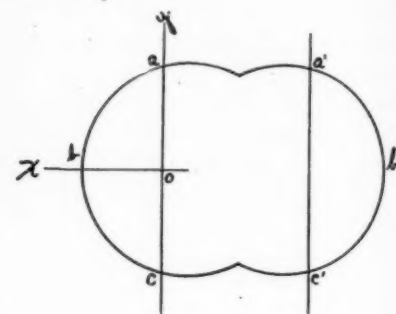
Mr. Gary's letter follows:

TO AMERICAN ARTISAN:

Harry Frye seems to be getting us into all kinds of trouble; so let's see if this won't satisfy:

Now, portions a, b, c, and a', b', c' in the illustration shown are equal.

Then, the area of a, b, c + a', b', c' =  $A = nr^2$ , in which  $r = 20$  and  $n$  equals pi. Then  $A = 1207$  square inches.



Now draw an x y axis through a c (as shown in the illustration) and the area a o x becomes  $A = x \sqrt{a^2 - x^2} + \frac{1}{2} \sin^{-1} \frac{x}{a}$ , in which  $x = 8$  or  $\frac{1}{2}$  diameter of second circle and  $a = 20$ .

Turn the crank, Harry, and  $A = 8 \sqrt{400 - 64} + \frac{1}{2} \sin^{-1} \frac{8}{20}$   $A = 153.28$  square inches.

But there are four such sections and we then have  $4 \times 153.28 = 613$  square inches.

The total area is  $1207 + 613$  square inches = 1820 square inches or 1820 square inches — 201 = 1619 square inches.

H. L. GARY.

Ashtabula, Ohio.



### Scott Wins Second Award for Solving H. L. Smith's Problem.

Here's where we hand William Scott, 201 Eighth Avenue, Juniata, Pennsylvania, the cast iron bath towel so that he can properly perform his ablutions at the beautiful hotel "on the crest of Huckleberry Hill" (atmosphere well suited to deep thought).

This towel, we hasten to explain, is an award of merit, made to Mr. Scott for distinguished service in proving the Editor's solution to the Smith problem incorrect. It is the second award, however, Harry Frye having taken first in discovering the Editor's error. Frye's award had something to do with pre-Volsteadism.

Mr. Scott's letter and explanation follow:

TO AMERICAN ARTISAN:

Having read your answer to H. L. Smith, of Morristown, Pennsylvania, whose S. O. S. was broadcast in AMERICAN ARTISAN of October 25, I fear that your Editor "who claims to be a wizard on figures," has been looking on "the wine when it is red" and carrying a cargo of "that which is not bread."

The equation given to Mr. Smith is not true, and if followed by that gentleman, will lead him farther into the fog.

Taking  $n = 3\frac{1}{7}$ , and "r" and "s" being the respective radii, the following is the correct equation:

$$22h \left( \frac{r^2 + rs + s^2}{7 \times 3} \right) = \frac{200 \times 231}{4},$$

$$h(r^2 + rs + s^2) = \frac{300 \times 231 \times 21}{4 \times 22}$$

$$\text{Whence, } h(r^2 + rs + s^2) = 16535.68.$$

Since the radii are not given, we may take any numbers that will not make the altitude more than 28. Taking  $r = 18$  and  $s = 12$ , by substituting we have

$$684h = 16,535.68.$$

$$h = 24.18 \text{ inches.}$$

In short,  $21/22$  of the volume of a frustum, divided by the sum of the squares and product of its radii, gives its altitude.

#### Proof of Formula.

Let "r" and "s" = the respective radii of the frustum A B E D.

Let  $x = FC$  and  $h = GF$ .

Then,  $r : s :: (x + h) : x$ .

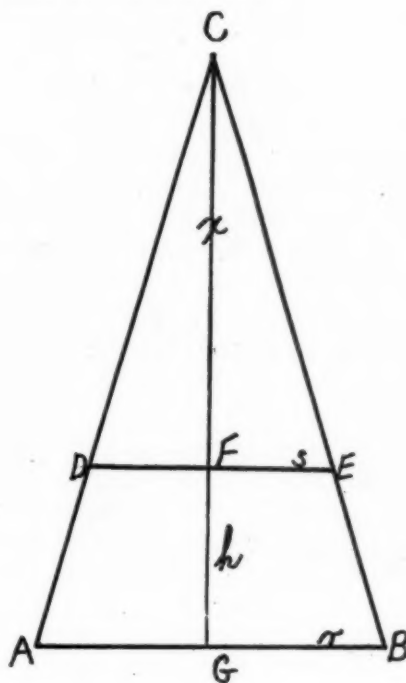
Whence,  $rx = s(x + h)$   $rx = sx + sh$ .

$$rx - sx = sh$$

$$x(r - s) = \frac{sh}{r - s}$$

$$x = \frac{sh}{r - s}$$

Now, the difference between cones A B C and D E C will be the volume of the frustum.



$$r^2 n^* = \text{area base A B.}$$

$$\frac{r^2 n}{3} \times (h + x) = \text{volume of cone A B C.}$$

$$\frac{s^2 n}{3} \times x = \text{volume of cone D E C.}$$

Substituting the value of x, we have:

$$\frac{r^2 n}{3} \times \left( h + \frac{sh}{r - s} \right) = \text{volume of cone A B C.}$$

$$\frac{s^2 n}{3} \times \left( \frac{sh}{r - s} \right) = \text{volume of cone D E C.}$$

$$\frac{r^2 n}{3} \left( h + \frac{sh}{r - s} \right) - \frac{s^2 n}{3} \left( \frac{sh}{r - s} \right)$$

= volume of frustum A B E D.

Simplifying, we have:

$$\frac{r^2 h n}{3} - \frac{s^2 h n}{3} = \text{volume of A B E D}$$

$$\frac{3(r - s)}{3} = \text{volume of A B E D}$$

$$h n r^2 - h n s^2$$

$$\frac{3(r - s)}{3} = \text{volume of A B E D}$$

$$h n (r^2 - s^2)$$

$$\frac{3(r - s)}{3} = \text{volume of A B E D}$$

$$h n (r^2 + rs + s^2) = \text{volume of A B E D.}$$

$$\frac{3(r - s)}{3} = \text{volume of A B E D.}$$

$$h n$$

$$\frac{3(r - s)}{3} = \text{volume of A B E D.}$$

$$h n$$

$$\frac{3(r - s)}{3} = \text{volume of A B E D.}$$

WILLIAM SCOTT.

Juniata, Pennsylvania.

\*In these calculations the small "n" represents pi or 3.1416.

### J. M. & L. A. Osborn New Catalog Contains Valuable Information.

Of great value to the sheet metal and allied industries is the new catalog of the J. M. & L. A. Osborn Company, 1541 East 38th Street, Cleveland, Ohio.

The book is beautifully bound in the so-called hard dark brown cover and contains 248 6x9-inch pages. It is fully indexed alphabetically.

To enumerate the contents of the book in the space allotted here would be impossible. Suffice it to say that tools, machines and materials of all kinds used in the sheet metal and warm air furnace industries are included. Many useful tables as well as price lists on all products are given therein.

As a ready material and tool reference book and guide nothing could occupy space in your files to greater purpose nor with more grace than this catalog.

The man whose only hold on his customers is that his prices are a shade lower than his competitors has a mighty insecure business. The wise man makes his service superior, and then the price element drops down where it belongs.

### Harry Frye Says Editor's Solution of Smith Problem Several Quarts Short.

What'll we do? Now Harry Frye's getting kinda riled up 'cause H. L. Smith slipped a problem over on him, which appears on page 30 of our October 25th issue.

He says he's not a "solver," but a "proposer." Kinda tough, this being leap year 'n ev'ything, with its consequent inaction for him. Then he bemoans the fact that ye Editor's solution *may* be several quarts short, which certainly would have a dash-of-cold-water effect on everybody's spirits were it proved true.

But the reader may judge for himself whether Mr. Frye is a good sport or not.

His letter follows:

TO AMERICAN ARTISAN:

I think it unfair to put Mr. Smith's tank problem directly up to me. I have not been posing as an expert solver, but as an expert proposer, and I will propose the following rule which I find to be as accurate as most rules in mensuration.

To the sum of the areas of both bases, add the square root of the product, and multiply this sum by one-third of the altitude. Expressed as a formula as follows:  $h =$  the height.  $r =$  the radius of the base.  $s =$  the radius of the top.  $v =$  the volume.

$$h/3 (r^2n + s^2n + \sqrt{r^2n \times s^2n}) = v.$$

In solving Mr. Smith's problem and using thirty-four inches as the diameter of the base and the height twenty-eight inches, his problem becomes

$$\frac{28/3 (17^2n + s^2n + \sqrt{17^2n \times s^2n})}{300 \times 231} = \frac{4}{4}$$

in which  $2s = 21.68$  inches for the diameter of the top.

If I have made no mistake in this calculation, ye Editor's solution is about eleven quarts short of the desired volume, which will probably do for the sheet metal worker, but would be disastrous to the bootlegger this side of the three-mile limit.

The top and bottom could be worked out to a stated ratio, as 2 to 3, etc. I haven't found the easy road that leads to the accomplishment of things worth while, and the above solution is rather difficult for those not familiar with this class of mathematics. Probably some one else can give us an easier rule.

HARRY FRYE.

Tullahoma, Tennessee.

### Scott and Frye Get Condemned Sheet Metal Man Out of His Difficulty.

Fearing that he may have stepped in too deep with his tank problem and not wishing to set a bad example for the younger generation by night walking, William Scott, 201 Eighth Avenue, Juniata, Pennsylvania, hastens to solve the problem of the sheet metal man condemned to death by the king in our November 1st issue.

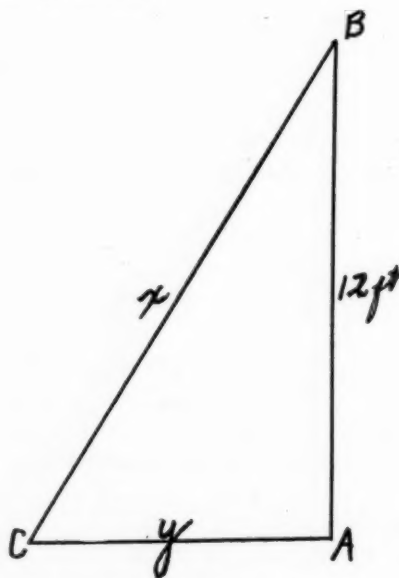
Mr. Scott's letter follows:

TO AMERICAN ARTISAN:

Solution to the tank-brace problem in AMERICAN ARTISAN of November 1st:

Let  $x = BC$ , and  $y = AC$ . Then  $x^2 - y^2 = 144$ .

Factoring both members  $(x + y)(x - y) = (8 \times 18) = (9 \times 16) = (4 \times 36)$ .



Now, since  $x$  and  $y$  are integers, both  $(x + y)$  and  $(x - y)$  are integers, and the factors in the left member equal those in the right member, each to each. Hence,

$$x + y = 18$$

$$x - y = 8$$

or

$$x + y = 36$$

$$x - y = 4$$

Since  $y$  is a minimum integer, its value will be found by taking the set of factors having the least even sum.

$$\text{Then, } x + y = 18$$

$$x - y = 8$$

$$\text{Subtracting } 2y = 10$$

$$y = 5, \text{ the re-}$$

quired side.

$$\text{Adding } 2x = 26$$

$$x = 13$$

WILLIAM SCOTT.

\* \* \*

Harry Frye's value of  $y$  agrees with that of William Scott, and here's what Frye has to say:

TO AMERICAN ARTISAN:

Like others in the past, I fail to see the trick in the king's sentence of the sheet metal man. The problem appears too easy to be true. But, nevertheless, I will make an attempt to save the man from the king's wrath. The hypotenuse is longer than the base. The next integer above 12 is 13. The difference of their squares is 25, and the square root of 25 is 5 and integral, therefore, the tank must be 5 feet wide.

HARRY FRYE.

Tullahoma, Tennessee.

### An Avenue of Publicity Open to Sheet Metal Contractors.

Sheet metal and roofing contractors, whether they know it or not, are rapidly approaching the time when they will find it necessary to make a special bid for publicity, in order that their products may not be pushed into disuse, not because the rival product is any better or as good, but because of greater news column publicity.

Most people buy that product about which they have heard the most.

To show how other firms are getting their products mentioned in the news columns of daily papers we quote here a portion of an article

written by a plumber which appeared in the November 5th issue of the *Chicago Evening Post*. In reading it we ask you to visualize the publicity coming to your industry had the words "sheet metal" been substituted for "concrete tile."

"The roof should be built on two by six joists, which is very little more expense than the use of two by four. The two by six will support a tile roof without reinforcing and since today concrete tile is fast coming into the field as a roofing material it is wise to select this or other permanent materials such as slate or clay tiling as these materials are all permanent and should last a generation without repair if properly installed and on a base of sufficient strength to carry the weight without settling."

Is there any reason why the sheet metal contractor could not get such material published about his everlasting materials? How much more impressive would it have been had the author of that paragraph about roofing, instead of saying "it would last a generation," said it would last a lifetime?

Here is a little food for thought which we hope will be the means of getting sheet metal men to thinking along these lines. Which will be the means of generating new life and interest into the industry.

### **When a Service Becomes a Drag on the Business.**

Retail merchants have heard a great deal about rendering special services to their customers. Many of the services now being regarded as a part of the sale require the maintenance of elaborate and expensive equipment. Merchandising methods are constantly changing. Therefore, the merchant should be doubly sure that the special service he renders is appreciated by his customers. The constant problem is not to see how much service you can render, but rather to learn how you can serve the customer the quickest and most efficiently. A safe maxim is that any service not needed will

go unappreciated and should be dispensed with. It is only a drag. This observation is made, however, with the caution that a service should not be abolished until the head of the firm has satisfied himself that it is unappreciated.

### **Milk or Whey Vats Must Be Lined with Tin-Clad Copper or Steel.**

A subscriber sends us the following query:

TO AMERICAN ARTISAN:

I have a job of lining a whey tank with sheet copper. The party who is to get it tells me that he is afraid that the whey will be poisoned from the copper.

The whey is poured into the vat at the same temperature at which it comes off from the cheese and is allowed to remain there sometimes as long as 24 hours.

Is there any danger of poison from the copper lining?

He also says that there is a law forbidding the use of copper in whey vats.

Please advise me as soon as possible as the job is being held up until certain who and what is correct.

SUBSCRIBER.

\* \* \*

Knowing that copper cooking vessels are usually lined with tin—in fact, we know of none that are not—we were inclined to agree with the cheese man, but to make sure we consulted an authority on creamery equipment and usage and received the information that if copper is used it must be tin-clad, also that a 20-gauge tin-clad steel sheet is permissible.

The reason is that the acid in the whey will re-act on the copper and unless the tank is kept absolutely clean between fillings enough poison will be developed to kill any animals that may drink such whey.

The clerk who makes himself more valuable to the store will inevitably make himself more valuable to himself. If not appreciated by his present boss, he will be discovered by some other.

## **Notes and Queries**

### **Dyers and Dry Cleaning Plants.**

From M. L. Kistler, Alexander City, Alabama.

Please advise me who makes complete dyers and dry cleaning plants.

Ans.—The American Laundry Machinery Company, Norwood Station, Cincinnati, Ohio; Troy Laundry Machinery Company, Limited, 824 South Michigan Avenue, Chicago, Illinois; F. W. Mateer and Company, 226 West Ontario Street, Chicago, Illinois; Interstate Machinery Company, Troy, New York, and C. and D. Machinery Exchange, Cincinnati, Ohio.

### **"Peerless" Automobile Radiator.**

From F. G. Maihack and Son, Rock Island, Illinois.

Can you tell us who makes the "Peerless" automobile radiator?

Ans.—Corcoran Manufacturing Company, Section and Foraker Avenue, Cincinnati, Ohio.

### **"Imperial No. 321 A" Hot Water Boiler.**

From Farmer City Implement Company, Farmer City, Illinois.

Who makes the "Imperial No. 321 A" hot water boiler, as we want to get repairs for it?

Ans.—It is now made by Burnham Boiler Company, Irvington, New York, and is known as the "Burnham." You can secure repairs also from the Northwestern Stove Repair Company, 654 West Roosevelt Road, Chicago, Illinois.

### **"Acme Hummer" Furnace.**

From Rex Furnace and Jobbing Company, 334 Second Avenue, N. E., Canton, Ohio.

Please tell me who makes the "Acme Hummer" furnace.

Ans.—Sears, Roebuck and Company (mail order), Chicago, Illinois.

**Address of E. Miller and Company.**  
From Shiel Manufacturing Company, Hillsdale, Michigan.

Will you please give us the address of E. Miller and Company, manufacturers of coal oil lamp burners for poultry house uses?

Ans.—Meriden, Connecticut.

It is more resultful to take a sound idea and pound it home than to take several good ideas and pound them intermittently.



## Window Display of Squares Made Attractive by Using Ferns and Other Decorative Material.

*Ornamentation Not So Profuse as to Distract Attention from the Squares in the Foreground.*

**T**O ATTRACT attention, the window display must be interesting; to be that it must be decorative; it must have charm; it must have breathed into it that peculiar

because such happenings do not interest. They would not be read.

The window display makes its bid for attention to the same beings which the newspaper must satisfy.

the being's own imagination, while the window display attracts with color and symmetry of design. The result in both cases is the same. The one encourages the subscriber to buy



An Attractive Tool Display Lifted Out of the Commonplace Category by F. J. Prince for the Western Iron Stores Company, Milwaukee, Wisconsin.

but rare trait, personality; it must have magnetism to attract.

Commonplace happenings are not found recorded in the news columns of our daily papers. This is true

Therefore, in suing for attention, it, too, must record the unusual, the extraordinary, the only difference being in the different nerve centers excited. The newspaper appeals to

the paper again; the other arrests attention and produces action favorable to the owner of the display.

The display must be interesting. To be interesting it must delve into

the realm of fact which is unusual in human experience; it must be something new or an old story told in a new way.

***Automatic Gas Industrial Equipment Catalog Issued by Charles A. Hones, New York.***

Charles A. Hones, Inc., Baldwin, Long Island, New York, makers of industrial gas equipment, are now issuing to the hardware and mill

supply houses their newest catalog.

The book is 8½x11 inches, containing seven pages included within soft paper covers.

Automatic blast gas soldering furnaces, Buzzer appliances, soft metal furnaces, gas burners and torches are fully illustrated therein.

Complete price lists are also included in the catalog. A postal card will bring the catalog to your desk and files if you have not already received it.

really made; to show them where they stand in the scale of competitive endeavor. In order that they may take encouragement, and most important of all, in order that they may get the best there is in ideas worked out by the entire congregation of hardware window display makers.

For this purpose AMERICAN ARTISAN AND HARDWARE RECORD's annual window display competition, which closes January 31, 1925, is designed.

In order to stimulate these men to submit the best of their work for the benefit of the art, we are offering four substantial cash prizes—\$50, \$25, \$15 and \$10—to be paid immediately after the judges have rendered their decisions and have chosen the winners.

The manner in which the decisions of the judges are arrived at allows for no favoritism or fraud. The judges have no way of knowing whose pictures they have at any time and their decisions must be based entirely upon the merit of the display.

Do not neglect to send us your window display photographs. If you have only one that you think would stand a fair chance of winning a prize, send that; if you have several, send them all. We will return the photographs to you if you so specify.

***J. P. Westbrook Buys Horner Hardware at Wadsworth, Ohio.***

J. P. Westbrook, formerly located at 3019 West Tusc Street, Canton, Ohio, has purchased the Horner Hardware, 146 Main Street, Wadsworth, Ohio, where he is now doing a good business under the name of Westbrook's Hardware.

Mr. Westbrook has been a subscriber to AMERICAN ARTISAN AND HARDWARE RECORD for twenty years, and in renewing his subscription says that he believes it will be of even greater help to him in his new place than in the past.

A ten dollar margin on a furnace installation usually turns into a loss.

***One of Those Thanksgiving Day Window Display Photographs May Win You a Prize In Our Competition.***

***Don't Neglect This Opportunity To Learn Where You Stand Among the Window Trimmers.***

THE "movie" industry has been variously advertised to the public as the silent drama. There is, however, another silent drama being enacted each day in almost every city, large or small, in the entire United States. Little or nothing is known about this drama beyond those who are the actors, and yet it may be safely said that the completed task of these actors probably influences more people to spend their money every year than does the motion picture industry. We speak of the silent drama of window trimming as it is practiced in the hardware stores throughout the country today.

Few people realize, or even think, when standing before a beautifully decorated window arranged in the most enticing manner, of the hours of preparation both in learning the art and in making that particular display the window trimmer has spent, in order that they, the gazers, might take in at a glance the many wares which the store has collected for their express convenience.

Some folks may think it an easy task to create in the imagination and execute in the form of a window display a beautiful design symmetrical in every respect and embodying the elements necessary to induce people to buy. It is not as

easy as it looks, nor it is as difficult as might be supposed.

The correctly constructed window display must have something of interest for everybody. The child, the grownup, the father, the husband, the mother, the young athlete—all are factors which must find some interest in the display. And the clever window trimmer does his best. He may not do it all in one window, but he does it over a period of time.

To inject all of these interests into the window display requires much thought and study. This thought and study must for the most part be given gratuitously by some ambitious clerk or proprietor after working hours. Many are the midnight kilowatts that have been expended in an effort to build up a representative window display. These efforts have not been entirely in vain. Many a small town today can boast a window display that would do credit to the larger organizations. However, we feel that there is still plenty of room for improvement as there always will be. But we feel that these men who have brought the art to the point of perfection at which it now temporarily rests are deserving of some mention of their work, if for no other reason than to let them see for themselves how much progress they have



**Thomas K. Niedringhaus, Son of Founder of "Nesco" Organization, Dies in St. Louis.**

Thomas Key Niedringhaus, former vice-president of the National Enameling & Stamping Company, and vice-president of the Commonwealth Steel Company, St. Louis, died in that city October 26th, following an illness of two weeks. He was born in St. Louis 64 years ago. Mr. Niedringhaus remained as a director of the National company and active manager of the branch at Granite City, Illinois, following his recent resignation as vice-president. He formerly had been prominent in politics. His father, Frederick G. Niedringhaus, founded the National Enameling & Stamping Company.

**Bulletin on Measuring Retail Market Issued by Department of Commerce.**

In a neat little 12-page supplement to the United States Department of Commerce Reports, under date of October 13th, 1924, the department has prepared and issued Trade Information Bulletin No. 272 of the Domestic Commerce Division.

The bulletin is entitled, "Measuring a Retail Market," which deals with the scientific ways of studying the community in which the store is located.

**Coming Conventions**

Mid-Year Meeting of the National Warm Air Heating and Ventilating Association and Dedication of the Warm Air Heating Research Residence, Urbana, Illinois, December 2, 1924. Allen W. Williams, Secretary, Columbus, Ohio.

Western Warm Air Furnace & Supply Association, Meeting, Sherman House, Chicago, December 4 and 5. Secretary John H. Hussie, 2407 Cumming Street, Omaha, Nebraska.

Western Retail Implement and Hardware Association Convention, Kansas City, Missouri, January 13, 14, 15, 1925. H. J. Hodge, Secretary, Abilene, Kansas.

Kentucky Hardware and Implement Association Convention, Jefferson County Armory, Louisville, week of January 18, 1925. J. M. Stone, Secretary-Treasurer, 200 Republic Building, Louisville.

Texas Hardware and Implement Association Convention, Dallas, Texas, Jan-

uary 20, 21, 22, 1925. Dan Scoates, Secretary-Treasurer, College Station.

West Virginia Hardware Association, Convention and Exhibition, Clarksburg, January 20 to 23, 1925. James B. Carson, Secretary, 1001 Schwind Building, Dayton, Ohio.

Missouri Retail Hardware Association, Convention and Exhibit, Hotel Statler, St. Louis, January 26 to 28, 1925. F. X. Becherer, Secretary, 5106 North Broadway, St. Louis.

Indiana Retail Hardware Association, Convention and Exhibit, Cadle Tabernacle, Indianapolis, January 27 to 30, 1925. G. F. Sheely, Secretary, 911 Meyer-Kiser Building, Indianapolis.

Mountain States Retail Hardware Association, Convention, Denver, Colorado, January 27 to 30, 1925. W. W. McAllister, Secretary, P. O. Box 513, Boulder, Colorado.

Indiana Sheet Metal Contractors' Association, Convention, Lafayette, February (dates not decided). Leslie W. Beach, 1136 Main Street, Richmond.

Oklahoma Hardware and Implement Association Convention, Masonic Temple, Oklahoma City, February 3, 4, 5, 1925. Charles L. Unger, Secretary-Treasurer, Oklahoma City.

Nebraska Retail Hardware Association Convention and Exhibition, Omaha, February 3, 4, 5, 6, 1925. Convention headquarters, Rome Hotel. Exhibition, City Auditorium. George H. Dietz, Secretary, 414-419 Little Building, Lincoln.

Wisconsin Retail Hardware Association Convention and Exhibition, Auditorium, Milwaukee, February 4, 5, 6, 1925. P. J. Jacobs, Secretary-Treasurer, Stevens Point.

Ohio Hardware Association, Convention and Exhibition, Columbus, February 10 to 13, 1925. James B. Carson, Secretary, 1001 Schwind Building, Dayton, Ohio.

New York State Retail Hardware Association Convention and Exposition, Buffalo, February 10, 11, 12, 13, 1925. Headquarters, Hotel Statler. Exposition at the Broadway Auditorium. John B. Foley, Secretary, City Bank Building, Syracuse.

Iowa Retail Hardware Association, Convention, Savery Hotel; Exhibit, Armory, Des Moines, February 10 to 13, 1925. A. R. Sale, Secretary, Hardware Building, Mason City, Iowa.

North Dakota Retail Hardware Association Convention (place not yet selected), February 11, 12, 13, 1925. C. N. Barnes, Secretary, Grand Forks.

Montana Implement and Hardware Association Convention, Helena, February 13, 14, 1925. A. C. Talmage, Secretary-Treasurer, Bozeman.

Pennsylvania and Atlantic Seaboard Hardware Association Convention and Exhibition, February 16 to 20, 1925, at Philadelphia Commercial Museum. Sharon E. Jones, Secretary, 604 Wesley Building, Philadelphia.

Illinois Retail Hardware Association Convention and Exhibit, Hotel Sherman, Chicago, February 17 to 19, 1925. Leon D. Nish, Elgin, Illinois, Secretary.

Minnesota Retail Hardware Association Convention, St. Paul Auditorium, St. Paul, February 17, 18, 19, 20, 1925. C. H. Casey, Secretary, Nicollet Avenue and Twenty-fourth Street, Minneapolis.

New England Hardware Dealers' Association Convention and Exhibition, Mechanics' Building, Boston, Massachusetts, February 23, 24, 25, 1925. George A. Fiel, Secretary, 10 High Street, Boston.

South Dakota Retail Hardware Association, Exhibit, Coliseum, Sioux Falls,

February 24 to 27, 1925. C. H. Casey, Secretary, Nicollet Avenue and 24th Street, Minneapolis, Minnesota.

Michigan Retail Hardware Association Convention, Grand Rapids, February 24, 25, 26, 27, 1925. Hotel headquarters, Hotel Pantlind. A. J. Scott, Secretary, Marine City.

Arkansas Retail Hardware Association Convention, Little Rock, May, 1925. L. P. Biggs, Secretary, 815-816 Southern Trust Building, Little Rock.

National Retail Hardware Association, Philadelphia, June, 1925. H. P. Sheets, Secretary, Indianapolis.

National Association of Sheet Metal Contractors, Atlanta, Georgia, June, 1925. E. L. Seabrook, Secretary, 608 East Chestnut Street, Philadelphia, Pennsylvania.

**Retail Hardware Doings**

**Arkansas.**

J. H. Pence of the Pence Furniture Company and W. E. Brown of Conway have formed a partnership under the firm name of Pence-Brown Furniture and Hardware Company.

**California.**

The interest of L. G. Nieson in the Porterville Hardware Company, Porterville, has been sold to Charles T. Holston.

**Illinois.**

Robert J. Pont has purchased his partner's interest in the Emmert and Pont Hardware Company at Annawan.

**Iowa.**

The hardware firm of Bortell and Forehand at Grinnell has dissolved partnership. The new firm will be known as Bortell and Company.

**Michigan.**

Albert Kriewall, for the past twelve years in the employ of Engle and Smith, Port Hope hardware dealers, has left their employ and purchased the hardware business of William Esler at Port Hope.

**Missouri.**

A deal has been closed whereby Frank Spangler traded his hardware store at Worth to H. E. Curie for a residence in Indianola, Iowa.

**Nebraska.**

E. W. Potts of Hastings has purchased the corner hardware stock of Charles L. Russell at Pierce.

A deal has been completed at Falls City, whereby Mrs. J. C. Tanner purchased the interest of W. W. Tanner in the hardware store which bears his name.

**Oklahoma.**

A brick building is being erected on North Wall Street, Claremore, which will be the new home of J. T. Wilson and Sons, hardware dealers.

**Oregon.**

Fisher Brothers Hardware Company have completed the installation of stock and fixtures in their new store at Bond and 12th Streets, Astoria.

**Wisconsin.**

W. P. Mulligan has disposed of his interest in the Federly and Mulligan hardware store at Kilbourne, to Robert J. Kimball of Briggsville. The firm name has been changed to Federly and Kimball, Incorporated.



## Pennsylvania Hardware Merchant Reopens Stove Department After Lapse of Five Years.

*Uses Slogan to Popularize the Store—Explains Why Department Was Discontinued.*

THERE is a particular advantage accruing to the store that selects a slogan which it uses in connection with its advertising. There are some precautions to observe, however, when selecting a slogan. It must be short, easily remembered and convey a message which refers to the store. It must be euphonious or smooth-sounding.

One of the best ways of selecting a slogan is to offer a prize for the best slogan written by a person residing in your town. This method has the advantage of bringing in a large number of ideas, and it also gives the store a great deal of favorable publicity, which far exceeds in value the amount of money spent for the prize.

A slogan of the type we describe is shown in the Erie Hardware Company advertisement, taken from the *Erie, Pennsylvania, Sun-Dispatch, Herald*.

The occasion of the advertisement was the reopening of a stove department which the store had found it necessary to discontinue about five years previously from a lack of floor space brought about by the rapid expansion of other departments of the store.

The explanation for the reopening given in the body of the ad is admirable. It links up the advertising of stoves by the firm in the past with that of the present and lends reassurance.

A period of five years is a long time and people forget. Unless some mention had been made of the stove department conducted previously, most people would be under the impression that the store was simply adding such a department as an avenue of expansion.

It is to be regretted, if it was not done purposely to attract attention, that a little more care was not exercised in proofreading the ad. An error accrues in the second word

of the first line—the word *souvenir* is incorrectly spelled.

The closing paragraph, too, is somewhat ambiguous and vague, particularly toward the end. The meaning of, . . . "so that question

A souvenir will be given to each lady and gentleman who visit our stove department opening on Monday.



*"To Erie Hardware  
Is to Economize"*

**Here's  
A Happy  
Surprise!**

**Erie Hardware Co.  
Opens New  
Stove Department**

You immediate and full stove wants, we believe, can be taken care of here better than any other place in this city. The slogan of this company has always been maintained and will be continued so with this new department. "To Erie Hardware is to Economize."

For over sixteen years the Erie Hardware Company has always conducted one of the largest and best stove departments in this section of the country and it was with considerable regret that about five years ago this company had to discontinue the department on account of changes in floor space and the rapid expansion of other departments. After the request of many hundreds of our past satisfied customers, the management has finally decided to re-establish a strictly first-class stove department such as the citizens of this community deserve and where they at all times can feel perfectly confident that they can get good dependable, reliable merchandise at prices that are rock-bottom and with stove service with each sale. The reputation of this institution for the selling of good merchandise at low selling prices we believe has been established for many years, and needs very little further discussion or remark.

The management has placed this department in the hands of a competent stove man who has served his apprenticeship from the construction of a stove through every department so that question and service will be given at all times in the proper way.

**ERIE HARDWARE CO.**

1220 State St.

**Telling Customers About the Reopening of a Stove Department.**

and service will be given at all times in the proper way," is the offending member.

The illustrations in the ad are good.

The headline, reading, "Erie Hardware Company Opens New Stove Department" should have

been made to read, "Erie Hardware Company Reopens Its Stove Department." This would connect it up with the body of the text.

The original ad was 6x16½ inches over all, printed in black upon green paper. The type sizes and styles are extremely well chosen.

We should like to ask the Erie Hardware Company how they made their slogan selection and if they have found it the success they thought it would be when originally adopted.

### *How One Range Salesman Learned What His Product Could Do.*

Whenever possible the salesman should experiment with merchandise until he knows exactly what it will do under various circumstances. A hardware salesman found himself unable to answer intelligently all the questions prospects have about his line of gas ranges. He persuaded the cook in his boarding house to make up biscuit dough, which he tested in the ranges until he could talk intelligently about baking biscuits. He knew how long he should operate the oven to bring the heat up to the proper temperature, how long to allow for the biscuit to rise, and how long they should remain on the top shelf in order to entirely brown. In short, he became confident himself that he could successfully bake biscuits in his line of ranges, and then he was in a position to impart this same necessary confidence to his customers.

### *Upon What Is Economy Based.*

If a man does not provide for his children, if he does not provide for all those dependent upon him, and if he has not that vision of conditions to come, and that care for the days that have not yet dawned, which we sum up in the whole idea of thrift and saving, then he has not opened his eyes to any adequate conception of human life. We are in this world to provide not for ourselves, but for others, and that is the basis of economy.—Woodrow Wilson.





# Carloadings Reveal Enormous Consumption of Goods And Forecasts Higher Outputs.

*Feeling Prevails In Metal Markets That Election Results  
Will Show Marked Results In Increased Business.*

**B**USINESS and finance responded emphatically to the results of the national election. The overwhelming popular approval of the known conservative views of President Coolidge, coupled with the recent steady improvement in the country's economic situation, was all that was needed to inspire enthusiasm.

The New York stock market gave the first and most enthusiastic response to the Coolidge landslide. The opening of the market was a dramatic event, watched by innumerable people throughout the country who wanted to see what the market "had to say" about the election.

This lends interest to the question, to just what extent orders had been kept back because of election uncertainty.

The *Iron Age* remarks that producing companies have this week "looked for more improvement after the election," while the *Iron Trade Review* reports that "orders for steel and other metal products, placed some days previously and made contingent on the result of the election, have been released."

Another statement, interesting in the same connection, was the monthly "index number" of commodity prices. It shows the average, as compiled by Dun's Review, to have reached on November 1 the highest point since the first month of 1921, standing nearly  $5\frac{1}{2}$  per cent above this year's lowest monthly average.

A strong bull tendency, only partly repressed by pre-election caution, has been manifest in the metal markets the past week. Consumers have placed orders sparingly, preferring to wait for the national election results before making further extensive commitments.

At the same time, the prospects for a favorable outcome of the elec-

tions has given rise among producers and sellers generally to a feeling that business will show the results of renewed confidence and, therefore, they have been equally cautious in their sales policies.

## **Copper.**

Electrolytic copper advanced  $\frac{1}{8}$  cent to 13.62 $\frac{1}{2}$  cents, delivered Connecticut. November 3, following a rise in export prices to that level, for metal alongside ship.

Domestic business has been relatively light the past week, but producers are so heavily sold and are so confident in the market outlook that they have been willing to book only limited tonnages at the going prices.

## **Tin.**

Tin statistics for October show the strongest position for this metal since the war. World visible supplies amounted to 18,971 tons, not including about 3,000 held privately under the Bandoeng agreement.

This is equal to about two months' deliveries, though not over half of the supplies could be made available in a month.

In April, 1921, the world visible dropped to 15,670 tons, but at that time the Bandoeng pool held about 17,000 tons, making an actual total of about 32,000 tons. Prices have continued to rise, reaching close to 54 cents, a new high since the early spring movement.

## **Zinc.**

Export sales of slab zinc in October are estimated at from 10,000 to 15,000 tons, while the volume of inquiry as this month opened was unabated. Inquiries November 3 involved fully 2,000 tons and a substantial business has been closed.

Rising foreign prices have stimulated advances in this market, though domestic consumers held

back the few days immediately before election. Prices have risen about \$2.00 a ton, to around 6.60 cents, East St. Louis, for November shipment.

## **Lead.**

Lead prices have remained irregular, with the advancing tendency somewhat checked by the conservative policies of the larger sellers. Business was done with some buyers on the basis of 8.65 cents, New York, for November shipment in the east, when other buyers paid other sellers up to 9 cents, New York. Similarly, middle western prices ranged from 8.40 cents to 8.70 cents, East St. Louis.

## **Solder.**

Chicago warehouse prices on solder are as follows: Warranted, 50-50, \$33.50; Commercial, 45-55, \$32.75, and Plumbers', \$31.50, all per 100 pounds.

## **Wire and Nails**

Better demand at Chicago for wire and wire products has come to most western makers in the past week and once the election suspense has been terminated further improvement is expected.

Only current requirements are now being placed, as jobbers are permitting makers to carry the stocks, but these requirements appear to be expanding.

Price irregularities continue numerous. The leading makers delivered prices figure back to 2.60 cents, base Joliet and Waukegan, for plain wire and 2.85 cents for wire nails, for western delivery.

## **Bolts and Nuts**

Makers of bolts and nuts at Chicago have experienced the quietest week in several months and blame it on the election. All classes of users have contributed to this quiet. Producers, however, has not suf-



ferred and specifications on third quarter contracts are being worked off at a good rate.

Makers say prices are firm on the basis of 60 and 10 off for large machine bolts.

### **Tin Plate.**

Gradual stiffening in plate quotations is apparent, and while the low figures have not disappeared entirely, there is a decided tendency to refrain from naming 1.80 cents or less. It is expected that soon 1.90 cents will be the minimum and 2.00 cents or higher the prevailing figure on regular lots.

Inquiries for oil storage tank plates are scarce, although more are current for barges.

The Midland Barge Company has received a contract for six steel barges from the Barrett Line, Cincinnati, involving about 1,000 tons of plates.

The five small and the 12 large barges for the Mississippi River Commission still are pending. They involve approximately 2,000 tons.

### **Sheets.**

Western sheet mills are operating practically at capacity, but order books of sheet makers are not lengthening quite so rapidly as those of other finished steel producers.

Consumers are buying amply for current needs. Prices are displaying strength, but they continue unchanged on the basis of 2.80 cents, base Gary and Indiana Harbor, for blue annealed, 3.60 cents for black and 4.70 cents for galvanized, for western delivery. Chicago delivered prices are \$1.00 a ton higher.

### **Old Metals.**

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$18.50 to \$19.00; old iron axles, \$24.50 to \$25.50; steel springs, \$19.00 to \$19.50; No. 1 wrought iron, \$14.00 to \$14.50; No. 1 cast, \$16.00 to \$16.50, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 8½ cents; light brass, 5¼ cents; lead, 6 cents; zinc, 3½ cents, and cast aluminum, 15 cents.

## **Heavy Inquiry Noted on Pig Iron — Large Increase in Production Scored for October.**

**Pittsburgh Market Becomes Active—Repeat Orders for No. 2 More Vigorous at Chicago.**

**A** BROAD buying movement in pig iron through the first quarter of 1925 has gained momentum during the week. Sellers declare rarely in their experience have they seen a demand of such size develop on the eve of a presidential election. Furnace companies with headquarters in Cleveland sold fully 45,000 tons in the week and have inquiry pending totaling 50,000 to 100,000 tons, including 40,000 to 50,000 tons for one large user.

Recent sales of basic at Pittsburgh have aggregated 15,000 tons, largely at \$18.50 valley and one round tonnage is pending.

Prices show more evidence of firmness with individual furnaces at Buffalo and Cincinnati have advanced 50 cents.

Selling of northern No. 2 foundry and malleable iron has been much more vigorous in the past week. Repeat orders for fourth quarter iron are numerous and melters are placing first quarter iron in a volume that indicates they are discounting the results of the election. Last quarter iron generally is quoted at \$20.50, furnace, and first quarter at \$21.00. One seller has advanced to \$21.00 for remainder of the year and first quarter.

Activity in low phosphorus is marked. A Milwaukee user has closed for 1,000 tons, while inquiries include 500 tons from Chicago and 200 tons from Milwaukee.

Most spot business in northern iron is in the neighborhood of 200 tons. The melt of gray iron and malleable foundries seems to be advancing evenly.

Southern iron sales are light. The range on Birmingham iron seems to be \$17.50 to \$18.00.

Pig iron selling in the Birmingham district is small lots mostly for local consumption. The aggregate still is about equal to the make with 15 furnaces on foundry iron.

Quotations range from \$17.50 to \$18.50 in base furnace.

No statement can be obtained as to the reported sale of 20,000 to 25,000 tons recently to one of the large cast iron pipe makers.

The market report of Rogers, Brown & Company says:

"If there is anything in business psychology, we are at the threshold of prosperity. Election results were discounted in many quarters, especially in the East where there has been a lively interest throughout the past week. Sales have been heavier and cover a variety of grades.

"First quarter delivery is the most popular and some round tonnages running into the thousands have been placed for that delivery.

"In addition, however, iron is still being bought for this year's needs and there is also an awakening interest in the entire first half of 1925. The heavy buying resulted in an advance in price by some furnaces.

"It is encouraging to realize that there is more than mere sentiment in the present activity. While some foundries catering to the automotive industries are not going so strong as they were a few weeks ago, on the whole it is safe to say that melt has increased and both foundries and steel plants are planning greater activity.

"Pig iron production has remained about stationary and it is not expected that there will be much change during the remainder of this year."

The manufacturer must strive to know the retailer's problems as well as his own.

Knowledge—thorough and specific—and unceasing study of the facts and forces affecting a business enterprise are essential to a lasting individual success and to efficient service to the public.